APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,007	10/13/2000	Richard A. Bramley JR.	00-1010	1372

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EXAMINER
BONURA, TIMOTHY M

ART UNIT	PAPER NUMBER
2184	

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Claim Objections

Applicant claims 1 and 12 are objected to because of the following informalities: In both

claims 1 and 12, a reference number to an item in Figure 1 is mentioned. This is not allowed. The

applicant can either remove the reference or encloses it with a set of "( )". Appropriate correction is

required.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in
> this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1-5, and 9-11 rejected under 35 U.S.C. 102(b) as being unpatentable by Scheive, et al,

U.S. Patent Number 5,398,333. Regarding claim 1:

a.   Regarding the limitation of modifying the EFI to include an EFI driver that operates

to configure available flash ROM space normally reserved for the BIOS as a diagnostic disk

drive, Scheive discloses a system with means to a have a diagnostic routine embedded in

memory that resides in non-volatile memory. (Lines 8-12 of Column 3). Scheive goes on to

say that the volatile memory is preferable an erasable programmable ROM (flash ROM).

(Lines 60-64 of Column 3).

b.   Regarding the limitation of storing the EFI and the EFI driver in the memory, Scheive

discloses the diagnostic routine is compressed and stored in a memory subsystem that

comprises ROM, system RAM and flash ROM. (Lines 10-13 of Column 5).

c.   Regarding the limitation of upon initializing the computer system, configuring the

space in memory for a diagnostic disk drive, Scheive discloses a system that after a boot

routine occurs, a load of the diagnostic routine into the memory occurs. (Lines 14-16 of

Column 3).

d.   Regarding the limitation of loading one or more diagnostic programs into the

diagnostic disk drive, Scheive discloses a system with means to decompress a driver routine

providing an environment in lieu of an operating system of the computer system within

which to execute the diagnostic routine. (Lines 19-24 of Column 3).

e.   Regarding the limitation of selectively booting the computer system to the EFI

command shell in the event of a problem, Scheive discloses a system that will boot to the

diagnostic routine upon completing a boot routine. (Lines 26-33 of Column 3). The

diagnostic routine will be bypassed if the system determines that a timer expires. (Lines 35-

37 of Column 5).

f.   Regarding the limitation of running diagnostic programs to correct problems, Scheive

discloses a diagnostic program to find errors in a system at boot time. (Lines 15-17 of

Column 6).

g.   Regarding the limitation of rebooting the system using the operating system on the

hard disk drive, the system of Scheive discloses that a system start normal operation after or

in lieu of testing. (Lines 35-37 of Column 5). The examiner has concluded that normal

operation would entail starting of an operating system since the diagnostic system is said to

be embodied on a person computer. (Lines 8-17 of Column 7).

3.   Regarding claim 2, Scheive discloses a system with means to have an operating system stored in memory. It is inherent that the operating system is software. Please also see 112 2nd paragraph rejections below.

4.   Regarding claim3, Scheive discloses a system wherein the diagnostic routine is stored in flash ROM that is firmware. (Lines 60-64 of Column 3). Please also see 112 2nd paragraph rejections below.

5.   Regarding claim 4, Scheive discloses a system with means to displays diagnostic routine events using a visual interface. (Lines 52-54 of Column 3).

6.   Regarding claim 5, Scheive disclose a system with means with compression and decompression means to store the data in the memory. (Lines 26-33 of Column 3).

7.   Regarding claim 9,

        h.   Regarding the limitation of a CPU, Scheive discloses a system with a processor. (Lines 59 of Column 4).

        i.   Regarding the limitation of a nonvolatile RAM, Scheive discloses a system with RAM. (Lines 10-13 of Column 5).

        j.   Regarding the limitation of the EFI, Scheive discloses a system with means to a have a diagnostic routine embedded in memory that resides in non-volatile memory. (Lines 8-12 of Column 3).

        k.   Regarding the limitation of BIOS, Scheive discloses a system with BIOS that is stored in flash ROM, which is a type of non-volatile RAM. (Lines 56-59 of Column 5).

        l.   Regarding the limitation of storing the EFI and the EFI driver in the memory, Scheive discloses the diagnostic routine is compressed and stored in a memory subsystem that comprises ROM, system RAM and flash ROM. (Lines 10-13 of Column 5).

m.   Regarding the limitation of upon initializing the computer system, configuring the

space in memory for a diagnostic disk drive, Scheive discloses a system that after a boot

routine occurs, a load of the diagnostic routine into the memory occurs. (Lines 14-16 of

Column 3).

n.   Regarding the limitation of loading one or more diagnostic programs into the

diagnostic disk drive, Scheive discloses a system with means to decompress a driver routine

providing an environment in lieu of an operating system of the computer system within

which to execute the diagnostic routine. (Lines 19-24 of Column 3).

o.   Regarding the limitation of selectively booting the computer system to the EFI

command shell in the event of a problem, Scheive discloses a system that will boot to the

diagnostic routine upon completing a boot routine. (Lines 26-33 of Column 3). The

diagnostic routine will be bypassed if the system determines that a timer expires. (Lines 35-

37 of Column 5).

p.   Regarding the limitation of running diagnostic programs to correct problems, Scheive

discloses a diagnostic program to find errors in a system at boot time. (Lines 15-17 of

Column 6).

q.   Regarding the limitation of rebooting the system using the operating system on the

hard disk drive, the system of Scheive discloses that a system start normal operation after or

in lieu of testing. (Lines 35-37 of Column 5). The examiner has concluded that normal

operation would entail starting of an operating system since the diagnostic system is said to

be embodied on a person computer. (Lines 8-17 of Column 7).

8.   Regarding claim 10, Scheive discloses a system with means to displays diagnostic routine

events using a visual interface. (Lines 52-54 of Column 3).

9.   Regarding claim 11, Scheive disclose a system with means with compression and

decompression means to store the data in the memory. (Lines 26-33 of Column 3).

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section
> 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the
> subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill
> in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

11.   Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheive as

applied to claim 1 or 9 above, and further in view of Davis, U.S. Patent Number 5,844,986.

Regarding claim 6, Scheive discloses a system with a diagnostic routine for test devices in a

computer system prior to initializing the operating system. Scheive does not disclose a system

wherein the EFI driver contains encryption routines. Davis discloses a system with BIOS that

contains encryption. (Lines 58-63 of Column 2). It would have been obvious to one of ordinary skill

in the art at the time of the invention to included means to encrypt BIOS into a diagnostic routine for

testing devices before a boot of an operating system because; it would prevent corruption of BIOS

and thereby prevent any modification without permission. (Lines 63-67 of Column 1 of Davis).

12.   Regarding claim 12, Scheive discloses a system with a diagnostic routine for test devices in a

computer system prior to initializing the operating system. Scheive does not disclose a system

wherein the EFI driver contains encryption routines. Davis discloses a system with BIOS that

contains encryption. (Lines 58-63 of Column 2). It would have been obvious to one of ordinary skill

in the art at the time of the invention to included means to encrypt BIOS into a diagnostic routine for

testing devices before a boot of an operating system because; Davis would prevent corruption of

BIOS, through encryption, which would result in preventing any modification without permission. (Lines 63-67 of Column 1 of Davis).

13.   Claims 7, 8, 13, and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Scheive as applied to claims 1 or 9 above, and further in view of Treu, U.S. Patent Number 5,245,615. Regarding claim 7, Scheive discloses a system with a diagnostic routine for test devices in a computer system prior to initializing the operating system. Scheive does not disclose a system wherein the diagnostic disk drive space is used to store POST error logs that may be read and displayed. Treu disclose a system that can store and read error logs. (Lines 15-25 of Column 4). Scheive, as disclosed above in claim 4, can displays errors to a user via an interface. It would have been obvious to on of ordinary skill in the art at the time of the invention to incorporate the error logging of Treu with the diagnostic routine for testing of Scheive. Scheive discloses that the diagnostic routine disclosed is more thorough than a standard POST. (Lines 11-15 of Column 6). Scheive also discloses that the POST occurs upon a reboot of the computer. (Lines 65-66 of Column 4). One of ordinary skill would understand that the POST error log must be stored and be able to be read if the POST occurs.

14.   Regarding claim 8, Treu discloses a system wherein the POST log data can be read by the operating system during the boot process. (Lines 16-22 or Column 7).

15.   Regarding claim 13, Scheive discloses a system with a diagnostic routine for test devices in a computer system prior to initializing the operating system. Scheive does not disclose a system wherein the diagnostic disk drive space is used to store POST error logs that may be read and displayed. Treu disclose a system that can store and read error logs. (Lines 15-25 of Column 4). Scheive, as disclosed above in claim 10, can displays errors to a user via an interface. It would have been obvious to on of ordinary skill in the art at the time of the invention to incorporate the error

logging of Treu with the diagnostic routine for testing of Scheive. Scheive discloses that the diagnostic routine disclosed is more thorough than a standard POST. (Lines 11-15 of Column 6). Scheive also discloses that the POST occurs upon a reboot of the computer. (Lines 65-66 of Column 4). One of ordinary skill would understand that the POST error log must be stored and be able to be read if the POST occurs.

16.   Regarding claim 14, Treu discloses a system wherein the POST log data can be read by the operating system during the boot process. (Lines 16-22 or Column 7).

Claim Rejections - 35 USC § 112

17.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

18.   Claims 2 and 3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Both claims 2 and 3 are indefinite because a method claim cannot comprise software and/or firmware. Appropriate action is required. This examiner has rejected claims 2 and 3, above, by interpreting the claims by the following meanings.

r.   Software/Firmware that comprises the method recited in Claim1. (These statements are presented for understanding only and are not intended to be in correct form for examination).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura**. The examiner can normally be reached on **Mon-Fri: 7:30-5:00, every other Friday off**. The examiner can be reached at: **703-305-7762**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Rob Beausoliel** can be reached on **703-305-9713**. The fax phone numbers for the organization where this application or proceeding is assigned are:

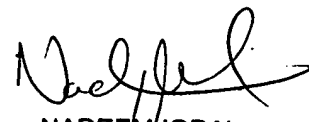**703-746-7239 for regular communications**

703-746-7240 for After Final communications

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **703-305-3900**.

Responses should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

NADEEM IQBAL
PRIMARY EXAMINER
                            NER

Tim Bonura
Examiner
Art Unit 2184

tmb
June 24, 2003